Work Order I		874		*115	5874*							Page 1
Item ID: D3-	492-15		A	Accept	*N900	040	100)* s	-	Start		S1*
Item Name: Plug	g									Stop	*N:	S2*
Start Date: 4/0	4/14	Start Qty: 20.00	*20*		Cust Item	ID:						
Required Date: 4/0	4/14	Req'd Qty: 20.00	*20*		Customer:							
Reference:							_	F	Run :	Start	*NII	Q1*
		: MCZ	_ Date: 14 -04 -09			ate:				Stop	1 31	1
Q	C:		Date:	SPC (Y/N) :	D	ate:				_	*NI	∃2 *
Sequence ID/ Work Center ID		Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty		Reject Number	Insp. Stamp
Draw Nbr	Revis	ion Nbr										
D3492	E				• •							
100				0.00								
100		Hardinge CNC LATHE	ESMALL					20		*		/14/04/
Hardinge Hardinge CNC Lathe Sm	all	Memo 1-Turn as p Dwg Rev: Folio Rev:	per Folio FXXX & Dwg D349	0.00					·			<i>/</i>
		rono Rev.								•		
110	1	QC2- Inspect parts off	machine FAI/FAIB	0.00								1,16
110				•				20		~		14/04/2
QC		Memo		0.00								/ 14° 17 °
Quality Control												
120	•	QC8- Inspect parts - sec	cond check	0.00						-~		Das 40
120				0.00				20		<u></u>	·	9-89
Quality Control		Memo										14/04/30

Quality Control

DQA:			Date:										
-						WORK ORDER NON	-CC	ONFO	RMANCE / UPD	ATE			AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	
						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Orde	r: _						,				, 1		-
						Rework			—	Crosstube		Water Jet	Engineering
Part No	o					Scrap			Ŭ⊢-I	Small Fab	-	d. Eng. Coor.	Quality
NCD N	_					Use-as-is		inern	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	o					Suspected Unapproved	1		Large Fab C	omposite	j	Supplier	
Root			·		Desc	ription of work order update		nitial	Action		Sign &		T .
Cause	-	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descripti	ion	Date	Verification	QC Inspector
Design													
Doc/Data			-				ł						
Equip/Tooling													
Handling/Pre													
Material							1						
Operator	_									1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Offset/Setup	_						1		•				
Process	4									*	j		
Supplier	4								٤٠				
Training	4								<u> </u>		;		,
Transport	4								٢ .				1
Unapproved						· · · · · · · · · · · · · · · · · · ·	FAI	UT CA	TEGORY				
1 41	- 6					Canaval	FA	OLI CA	IEGURT	*	<u></u>		
Landin	_	ear Bending				General Bend		leolio/s	Program		Outside Dim	ensions [Pressure/Forced
-	_	Centre No	nt Cancar	ntric	\vdash	BOM/Route	\vdash	Grain	TOBIATI		Over/Under	<u> </u>	Set-up
		Cracks	ot concer	itiic	-	Broken/Damage/Defect	 	Hardwa	are		Part Incorred	<u> </u>	Temperature/Cure
 	_	Crimp/Kir	ık/Rinnle	/Wave	-	Burrs		-i	ion Incomplete/Unqua	alified —	Part Lost/Mi	—	Weld
3.4	-	Cuffs	ny mppie,	, wave		Contamination	\vdash	4 '	tions Incomplete/Uncl		Part Moved		Wrong Stock Pulled
		Crushing				Countersink		4	gned/off center		Positioned V	Vrong	_
1	\neg	Heat Trea	ıt			Cut Too Short		Mislabe	•		Power Loss/	Surge	Other
	—	Inspectio		Tube		Drawing		Misrea	d	·			
 	_	Marks/Ch	•			Drill Holes		Off-set					
	7	Turning S	equence			Finish		Out of	Calibration				
		Wave/Tw	ist in Tuk	oe .		Fit/Function		Out of	Sequence				

Work Order ID	115874
April-04-14 10:23:48 Al	M

115874

Page 2

April-04-14 10.	:23:48 AM				1:30	4							1 460 2	
Item ID: Revision ID: Item Name:	D3492-15			Accept	*	1 900	<u>ი</u> 40	100)* 5	Setup	Start Stop		S1* S2*	
Start Date: Required Date Reference:	4/04/14 : 4/04/14	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*			Cust Item I Customer:	D:					14.		
Approvals:	Process Pl QC:	an:	Date:	Tooling: SPC (Y/N)	·		ate:		I	Run	Start Stop		R1* R2*	
Sequence ID/ Work Center I 150 *150* HandFinish Hand Finishing 160 *160* Powder Coating	D	Operation Description Chemical Conversion Coa Memo White Gloss(Ref. 4. 3.5.1) Memo (Flat End Onl START TIME OVEN TEME FINISH TIME	per 081905 4.3-Alum y) 8.35 perature:	Set Up/ Run Ho 0.00 0.00		Tool ID	Tool#	Plan Code			М <u>Б</u> уу.	Reject Tumber	Insp. Stamp	40
170 *170* QC Quality Control		QC3- Inspect Part Finish Memo		0.00 0.00	DAS 27 19-89 12 22				-					

DQA:			Date:						_				
			5.			WORK ORDER NON	-CC	ONFO	RMANCE / UP		I. OI		AEROSPACE
QA Closed:			Date:							VV	ork Order up	date only	
Work Orde	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Ora	·••					Rework			Skid-tube	Crosstube	1	Water Jet	Engineering
Part i	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is	i i		noforming	Finishing	4	re/Packaging	Other
NCR I	۷o.					Suspected Unapproved			Large Fab	Composite	1	Supplier	
	•										_	·	
Root		1			Desc	ription of work order update	ı	nitial	Actio	on	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	otion	Date	Verification	QC Inspector
Design						÷							
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator	<u> </u>												
Offset/Setup	$ldsymbol{\sqcup}$												
Process													
Supplier	H				i I								
Training .	\vdash						ļ						
Transport Unapproved	-												
Chapproved	L	<u> </u>]		l		FAI	ULT CA	TEGORY		<u></u>		<u> </u>
Landi	ng (Gear				General				· · · ·		·	
	٦	Bending				Bend		Folio/F	Program		Outside Dim	ensions	Pressure/Forced
	<u> </u>	Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorre	ci 📗	Temperature/Cure
		Crimp/Kir	nk/Ripple,	/Wave		Burrs		Inspect	ion Incomplete/Unq	qualified	Part Lost/Mi	issing	Weld
		Cuffs				Contamination		Instruc	tions Incomplete/Un	nclear	Part Moved		Wrong Stock Pulled
		Crushing				Countersink		Misali	gned/off center		Positioned V	Vrong	-
		Heat Trea	at			Cut Too Short		Mislabe	eled		Power Loss/	Surge	Other
		Inspectio	n Strip in	Tube		Drawing		Misrea	d				
		Marks/Ch	natter			Drill Holes		Off-set					
		Turning S	equence			Finish		Out of	Calibration				
		Wave/Tw	vist in Tub	e		Fit/Function		Out of	Sequence			<u></u>	

Work Ord April-04-14 1		15874	*1
Item ID:	D3492-15		Accept
Revision ID:			
Item Name:	Plug		
Start Date:	4/04/14	Start Qty: 20.00	*20*
Required Dat	e: 4/04/14	Req'd Qty: 20.00	*20*
Reference:			<i>,</i> , , , , , , , , , , , , , , , , , ,

Process Plan:

Operation

Description

115	874							Page	3
ept	*N900	<u>040</u>	100)* s	etup	Start	*N	S1*	
						Stop	*N	S2*	
	Cust Item II Customer:	D:							
ooling: _	Da	ıte:		R		Start Stop		R1*	
PC (Y/N):	Da	ite:				осор	*N	R2*	
Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp	
0.00				<u> </u>)(4_	Ill	11/03	
0.00				·		1		,	'

190

Approvals:

Sequence ID/

180 Packaging

Packaging

180

190

Work Center ID

QC21- Final Inspection - Work Order Release

Identify as per dwg & Stock Location: FP-001

Date:

Date:

0.00

Tooling:

0.00

SPC (Y/N):

Memo

Memo

0.00

Quality Control

MUS HOSTI

DQA:			Date:						.					TAAG"
OA Classic			Data			WORK ORDER NON-	-CC	ONFO	RMANCE / U	PDATE	14/	ork Order up	ndate only	AEROSPACE 7
QA Closed:		****	Date:								VV	ork Order up	date only	
Work Orde	or.					DISPOSITION				AGAINST	DE	PARTMENT	/PROCESS	
WOLK OLU	-''.				_	Rework			Skid-tube	Crosstube	.[_]	Water Jet	Engineering
Part N	lo.					Scrap		1	Machining	Small Fab	_	Pro	d. Eng. Coor.	Quality
	•	****			_	Use-as-is		Thern	noforming	Finishing	, 	Rec/Sto	re/Packaging	Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite]	Supplier	
													·	
Root					Desci	ription of work order update		nitial		tion		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Desci	ription		Date	Verification	QC Inspector
Design														
Doc/Data	_													
Equip/Tooling														
Handling/Pre														
Material ,														
Operator														
Offset/Setup														
Process			:											
Supplier Training														
Transport														
Unapproved														·
							FA	ULT CAT	TEGORY					
Landi	ng (ear		-		General					_	,		_
		Bending				Bend		Folio/F	Program			Outside Dim	ensions	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route		Grain			<u></u>	Over/Under	<u> </u>	Set-up
		Cracks				Broken/Damage/Defect		Hardwa				Part Incorre	 	Temperature/Cure
:	L	Crimp/Kir	nk/Ripple	/Wave	<u> </u>	Burrs		4	ion Incomplete/U		_	Part Lost/Mi	issing	Weld
		Cuffs			<u> </u>	Contamination	_	4	tions Incomplete/	Unclear	\vdash	Part Moved	∟	Wrong Stock Pulled
i	-	Crushing				Countersink	<u></u>	4	ned/off center		_	Positioned V		ا ا
	<u> </u>	Heat Trea			<u> </u>	Cut Too Short	<u> </u>	Mislabe				Power Loss/	Surge	Other
	_	Inspection	-	Tube	-	Drawing	<u> </u>	Misread						
		Marks/Ch			<u> </u>	Drill Holes	<u> </u>	Off-set						
	<u> </u>	Turning S			<u> </u>	Finish	<u> </u>	4	Calibration					
	l	Wave/Tw	rist in Tub	e		Fit/Function	L	Out of	Sequence					

Picklist Print

April-04-14 10:23:47 AM

Work Order ID: 115874 *115874*

Parent Item: D3492-15

D3492-15

Parent Item Name: Plug

Start Date: 4/04/14

Required Date: 4/04/14

Page 1

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP REV:A 13.11.14 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R0.875		Purchased	No				f	21.0000		1.052632			
*M6061T6 6061-T6 Round Bar .875"	RO 875	*							**				

 Location
 Loc Oty
 Loc Code

 MAT013
 21

 125552
 21

1, 283 · /14/04/29

DQA:			Date:			WORK ORDER NON	~							"DART
QA Closed:			Date:			WORK ORDER NON-	-CC	JINFUI	RIVIAINCE / U		W	ork Order up	odate only	AEROSPACE
11		,				DISPOSITION				AGAINST	DE	PARTMENT	/PROCESS	
Work Orde	er:					D	ıÌ		ا ماريم امناي	Crasstubal		1	Water Jet	Engineering
Part N	۱o	· -			_	Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing		ł	d. Eng. Coor. re/Packaging	Quality Other
NCR N	۱o	···-				Suspected Unapproved			Large Fab	Composite		i Nec/Stol	Supplier	
Root	T	_			Desci	ription of work order update		nitial	Act	ion		Sign &		
Cause		Date	Step	Qty		or non-conformance	l	ief Eng	Descr	ription		Date	Verification	QC Inspector
Design				,	-									<u>-</u>
Doc/Data														
Equip/Tooling														
Handling/Pre														
Material							i							
Operator													i	
Offset/Setup					,									
Process							Ì							
Supplier	П						İ							
Training														
Transport														
Unapproved	П									•				
			•				FAI	ULT CAT	EGORY					
Landi	ng G	iear	-		,	General						_	_	
		Bending				Bend		Folio/F	rogram			Outside Dim	ensions	Pressure/Forced
	П	Centre No	ot Concer	ntric		BOM/Route		Grain				Over/Under	tolerance	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	re			Part Incorre	ci [Temperature/Cure
	П	Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/U	nqualified		Part Lost/M	issing	Weld
		Cuffs				Contamination		Instruct	ions Incomplete/I	Jnclear		Part Moved		Wrong Stock Pulled
		Crushing				Countersink		Misalig	ned/off center			Positioned V	Vrong	
	\vdash	Heat Trea	it			Cut Too Short		Mislabe	eled			Power Loss/	Surge	Other
	П	Inspection	n Strip in	Tube		Drawing		Misread	d	!				
	-	Marks/Ch	•			Drill Holes		Off-set						
'	ш	Turning S				Finish		Out of	Calibration					
		Wave/Tw				Fit/Function		Out of s	Sequence					

DART AEROSPACE LTD	Work Order:	115874
Description:	Part Number:	
Inspection Dwg: Rev:		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0,850	+ 0,010	0,849	/		MJP-01	miz
0,140	+ 0010	0,6395			111	, , ,
0,050	+ 0,000	0,050			MJP-04	Vorn
0,090	+ 0,000	1 189			11,	, , ,
0 060	+ 0,005	0 010	/			111
0,050 × 20°	+ 0,010	0,030x20°	/		111	, , ,
0,050 > 20°	+ 0,010 + 0,010	0,050x30° 0,050x30°	/		31006	Height gauge
						
			DAS			

	1.0		DAS.		
Measured by:		Audited by:	40	Preliminary Approval:	
Date:	14/04/29	Date:	14/04/30	Date:	
					•

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

D3492-XX PLUG (SEE TABLE)--NAS1611 O-RING (SEE TABLE)

115874 MCD (40409

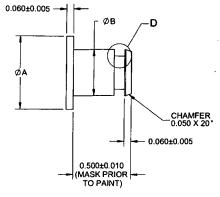
D3492-XXX PLUG PARTS LIST

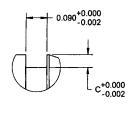
					D349	4-77	V L L	G PARTS LIST		
QTY -041	QTY -043	QTY -045	QTY -047	QTY -049	QTY -051	QTY -053	QTY -055	PART NUMBER	DESCRIPTION	
X		1		İ				D3492-041	PLUG ASSEMBLY	7
	Х							D3492-043	PLUG ASSEMBLY	7
		Х						D3492-045	PLUG ASSEMBLY	
			Х					D3492-047	PLUG ASSEMBLY	7
				Х				D3492-049	PLUG ASSEMBLY	7
	T				Х			D3492-051	PLUG ASSEMBLY	7
						X		D3492-053	PLUG ASSEMBLY	Π.
							Х	D3492-055	PLUG ASSEMBLY	<u>/</u> £
<u> </u>	ļ						ļ			
1		ļ						D3492-1	PLUG	_
	1					ļ		D3492-3	PLUG	_
<u></u>		1						D3492-5	PLUG	
	L		1			L		D3492-7	PLUG	
L				1				D3492-9	PLUG	_
					1			D3492-11	PLUG	_
						1		D3492-13	PLUG	
							1	D3492-15	PLUG	_ Æ
		1				 -		NAS1611-005	O-RING	4
	 	<u> </u>	1					NAS1611-007	O-RING	
1			- '-					NAS1611-010	O-RING	\dashv
<u></u>	ļ					1		NAS1611-010	O-RING	\dashv
	1				 -	<u> </u>		NAS1611-012	O-RING	\dashv
<u> </u>	— •	ļ		 						\dashv
		ļ			1	ļ	1	NAS1611-015	O-RING	4
		l		1		<u> </u>	L	NAS1611-016	O-RING	

NOTES: 1) O-RING: POSSIBLE SUPPLIER P/N: NAS1611-XXX OR PARKER 2-XXX

E	ADD -05	5 PLUG ASSY	AP	13.08.08		
D	INCORP WAS 0.0	ORATED DEC	AJS	11.05.24		
С	ADD -04	9/-051/-053, C	HANGE DRAWING FORMAT	PH	. 07.10.05	
В	ADD -04	7; UPDATE DI	M A FOR -045	PH	06.05.11	
Α	NEW IS:	SUE		PH	06.01.04	
REV.	DESCRI	PTION		BY	DATE	
DESIGN PH			DART AEROSI	ACEL	[D	
DRAWN AP		AP	HAWKESBURY, ONTA	RIO, CANAI	DA	
CHECKED #JS MFG. APPR.		ASS	DRAWING NO.		REV. E	
		77	D3492	SHEET 1 OF 2		
APPROVED A		149	TITLE	SCALE		
DE APPR		-#	PLUG		NTS	
DATE 13.08.08			COPYRIGHT © 2007 BY DAR THE DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUP- NOT TO BY UND FOR MAY DEPOSE TO CORES OF COMM	PLIED ON THE EXPRESS	S CONDITION THAT IT IS	

-POWDER COAT THESE FACES ONLY PER NOTE 2





DETAIL D

D3492-XX PLUG

D3492-XX PLUG MACHINING DETAILS

P/N	A	В	С	MATERIAL SPEC
D3492-1	0.625	0.394	0.050	M6061T6R0.625
D3492-3	0.750	0.582	0.045	M6061T6R0.750
D3492-5	0.375	0.188	0.045	M6061T6R0.375
D3492-7	0.500	0.270	0.045	M6061T6R0.500
D3492-9	0.938	0.750	0.045	M6061T6R1.000
03492-11	0.850	0.664	0.045	M6061T6R0.875
03492-13	0.750	0.510	0.045	M6061T6R0.750
D3492-15	0.850	0.640	0.050	M6061T6R0.875



D

С

NOTES:
1) MATERIAL: ALUMINUM 5052-H32 OR 6061-T6 OR 1100-0 PER QQ-A-225/7 (5052) OR
QQ-A-225/8 (6061) OR QQ-A-200/8 (6061) OR QQ-A-225/1 (1100)
(REF. DART MATERIAL SPEC M6061T6R0.000)
2) FINISH: CHÈMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE CLOSS (4.3.5.1) DER DART OSLOG 4.3

POWDER COAT WHITE GLOSS (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: N/A

DESIGN	PH	DART AERO	DSPACE LTD	
DRAWN	AP	HAWKESBURY, C	ONTARIO, CANADA	
CHECKED	455	DRAWING NO.	REV. E	
MFG. APPR.	77	D3492	SHEET 2 OF 2	
APPROVED	10	TITLE	SCALE	
DE APPR.		PLUG	4:1	
DATE 13.0	80.8	COPYRIGHT © 2007 BY DART AEROSPACE LTD. THIS DOLMAIN IS IMPAILE AND COMPORATION AND IS USPALED ON THE EXPRESS CONCIDENT THAT IT IS HOT TO RE USED FOR MAY PURPOSE OR COMPANION AND THAT ANY OTHER PERSON WITHOUT WHATTEN PERSONS WITHOUT WHAT ALL OWNERS LETT.		

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